Notice of Allowability	Application No.	Applicant(s)	
	10/731,881	WAHLSTRAND ET AL.	
	Examiner	Art Unit	
	Jessica L. Reidel	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's Amendment of 08/10/2007*.

2. ☒ The allowed claim(s) is/are *1,2,4,6-20,22-25 and 28-32*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 8/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Jessica H. Kwak on October 22, 2007.

The application has been amended as follows:

Please delete all of Claim 1 and replace with the following:

An implantable medical device comprising:

a plurality of interconnected modules, each of the modules comprising a respective housing to house each respective module;

an overmold comprising a first substantially flexible, elastomeric component, that at least partially encapsulates each of the housings, and second and third non-elastomeric components that are located adjacent to at least one side surface of a respective one of the housings; and

a motion reduction element within the overmold to reduce relative motion between at least two of the modules,

wherein the motion reduction element couples the second and third components of the overmold.

Claim 5 has been cancelled by this Examiner's Amendment.

Please delete all of Claim 6 and replace with the following:

An implantable medical device comprising:

a plurality of interconnected modules, each of the modules comprising a respective housing to house each respective module;

an overmold that at least partially encapsulates each of the housings; and

a motion reduction element within the overmold to reduce relative motion between at least two of the modules,

wherein the overmold comprises a first substantially flexible component, that at least partially encapsulates each of the housings, and second and third components that are located adjacent to side surfaces of respective ones of the housings, and

wherein the motion reduction element couples the second and third components of the overmold and comprises a first motion reduction element that protrudes from the second component of the overmold, the implantable medical device further comprising a second motion reduction element that protrudes from the third component of the overmold, wherein first and second motion reduction elements interact to reduce relative motion between modules associated with the second and third components.

Please delete all of Claim 19 and replace with the following:

An implantable medical device comprising:

a plurality of interconnected modules, each of the modules comprising a respective housing to house each respective module;

an overmold comprising a first substantially flexible, elastomeric component, that at least partially encapsulates each of the housings, and second and third non-elastomeric components that are located adjacent to at least one side surface of a respective one of the housings; and

means within the overmold for reducing relative motion between, at least two of the modules,

wherein the means within the overmold for reducing relative motion between at least two of the modules couples the second and third components of the overmold.

Please delete all of Claim 25 and replace with the following:

An implantable medical device comprising:

a plurality of interconnected modules, each of the modules comprising a respective housing to house each respective module;

an overmold that at least partially encapsulates each of the housings;

a coupling module to couple at least two of the modules, wherein the coupling module is flexible to allow at least one degree of relative motion between the modules, the at least one degree of relative motion comprising rotational motion; and

a motion reduction element within the overmold to reduce relative motion between the at least two of the modules in the at least one degree.

In Claim 28, lines 2-3, immediately after, "each of the modules comprising", "a housing to house the respective module;" was deleted and -- a respective housing to house each respective module; -- was inserted.

In Claim 31, line 1, immediately after "of claim 1, wherein", "the housing" was deleted and -- a respective housing -- was inserted.

Allowable Subject Matter

2. Claims 1, 2, 4, 6-20, 22-25 and 28-32 are allowed.

3. The following is an Examiner's statement of reasons for allowance:

4. Berrang et al. (U.S. 6,358,281) (herein Berrang) discloses an implantable medical device (IMD 1) comprising a plurality of interconnected modules (i.e. battery module 18 and electronics circuit 21), each of the modules 18 and 21 comprising a respective housing to house each

respective module. Specifically, the electrochemical cell portion battery module 18 inherently comprises its own housing because Berrang discloses use of either a lithium ion or nickel metal hydride-type electrochemical cell (see Berrang column 12, line 55). The housing of battery module 18 further comprises a ceramic substrate 24, potting material 28 and gold/palladium vacuum deposited layers which, in combination, make up hermetically sealed housing section 2 for battery module 18. Electronics circuit module 21 of Berrang comprises a hermetic housing that comprises a ceramic substrate 25, potting material 31 and gold/palladium vacuum deposited layers which, in combination, make up hermetically sealed housing section 3 for electronics circuit module 21 (see Berrang Figs. 2-3, column 11, lines 28-67 and column 12, lines 1-25).

Berrang further discloses that, in further embodiments, each respective housing section 2 and 3 for each respective module 18 and 21 may be "further coated with titanium, platinum, medical grade silicone, or any combination thereof" and the Examiner considers such a multi-layered coating synonymous with a multi-component "overmold" comprising a first substantially flexible, elastomeric component (i.e. silicone), that at least partially encapsulates each of the housings 2 and 3, and second and third non-elastomeric components (i.e. titanium and/or platinum) that also at least partially encapsulate each of the housings 2 and 3. Since Berrang specifies "any combination" any layer/component/material may be adjacent any or all sides of housing section 2 and 3 (see Berrang column 9, lines 50-62).

Berrang further discloses a polymer film 26 containing platinum wires and gold foil 27 that make up a pliable bridge structure 6 which interconnects housing sections 2 and 3. The bridge structure 6 of Berrang is considered synonymous with a "motion reduction element" within the aforementioned overmold since it connects housing sections 2 and 3 of each

respective module 18 and 21, thus each of the respective modules 18 and 21 are incapable of moving apart from one another (see Berrang column 9, lines 50-62, column 11, lines 28-54 and column 12, lines 20-25). The IMD 1 of Berrang further includes a flexible tether, read as a coupling module to couple module 4, comprising wire 12 and housing 13, to modules 2 and 3 (see Berrang Figs. 1 and 15-18, column 6, lines 4-25 and column 10, lines 18-42). Berrang discloses the claimed invention, as previously discussed, except the structural relationships of the multi-component overmold with the other portions of the IMD 1, specifically motion reduction element 6 and housings 2 and 3 are not specified or expressly disclosed. In addition, neither the coupling module nor the motion reduction element 6 of Berrang are specified as being capable of allowing rotational movement to any degree between any of the modules 2, 3 and 4.

5. The references of the prior art fail to show or teach *all* of the Applicant's claimed invention and fail to show or teach any obviousness type improvement over the prior art and as a result, the Examiner deems these claims and their depending claims to be allowable over the prior art [emphasis added]. Specifically, the state of the art fails to show an implantable medical device comprising a plurality of interconnected hermetically sealed modules and an overmold, where the overmold comprises a first substantially flexible, elastomeric component, that at least partially encapsulates each hermetically sealed/housed module, and second and third non-elastomeric components that are located adjacent to at least one side surface of a respective one of the sealed/housed modules and a motion reduction element within the overmold, where the motion reduction element couples the second and third non-elastomeric components of the overmold. In addition, the state of the art fails to show an implantable medical device comprising a plurality of interconnected hermetically sealed modules and an overmold, as

discussed, that comprises both a motion reduction element within the overmold for reducing motion between at least two of the modules and a flexible coupling module/element for allowing at least one degree of relative motion between the modules, the at least one degree of relative motion comprising rotational motion.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jessica L. Reidel whose telephone number is (571) 272-2129. The Examiner can normally be reached on Mon-Thurs 8:00-5:30, every other Fri 8:00-4:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Carl H. Layno can be reached on (571) 272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Carl H. Layno
CARL LAYNO
PRIMARY EXAMINER

/Jessica L. Reidel/
Patent Examiner, Art Unit 3766
October 22, 2007